

We claim:

1. A method comprising:
programming a hearing aid system using at least one mobile wireless communication protocol.
2. The method of claim 1, wherein programming includes programming the hearing aid system by a mobile device.
3. The method of claim 2, wherein programming includes programming the hearing aid system by the mobile device that is adapted to communicate with a server.
4. The method of claim 3, wherein programming includes programming the hearing aid system by the mobile device that is adapted to communicate with a server through at least one network using the at least one mobile wireless communication protocol.
5. The method of claim 4, wherein the programming includes programming a programming module coupled to the hearing aid system.
6. A method for tailoring an audiological therapy for a patient, the method

comprising:

deriving at least one audiological parameter by obtaining data about at least one aural response of the patient; and

programming a hearing aid system based on the at least one audiological parameter by a mobile device so as to tailor an audiological therapy for the patient.

7. The method of claim 6, wherein programming includes programming the hearing aid system based on the at least one audiological parameter by the mobile device that is adapted to communicate with a server.

8. The method of claim 7, wherein programming includes programming the hearing aid system based on the at least one audiological parameter by the mobile device that is adapted to communicate with the server through at least one network so as to tailor the audiological therapy for the patient.

9. A method comprising:

deriving at least one audiological parameter by obtaining data about at least one aural response of a patient; and

upgrading a piece of software capable of executing on the hearing aid system based on the at least one audiological parameter, wherein upgrading includes downloading the software by a mobile device.

10. The method of claim 9, wherein downloading includes downloading the software by the mobile device that is adapted to communicate with a server.

11. The method of claim 10, wherein downloading includes downloading the software by the mobile device that is adapted to communicate with the server through at least one network.

~~12.~~ A business method comprising:
deriving at least one audiological parameter by obtaining data about at least one aural response of a patient;
upgrading a piece of software capable of executing on the hearing aid system based on the at least one audiological parameter, wherein upgrading includes downloading the software by a mobile device; and
charging for upgrading the software in the hearing aid system.

13. The business method of claim 12, wherein downloading includes downloading the software by the mobile device that is adapted to communicate with a server.

14. The business method of claim 13, wherein downloading includes downloading the software by the mobile device that is adapted to communicate with a server through at least one network.

15. A system comprising:
a hearing aid system; and
a mobile device adapted to program the hearing aid system.

16. The system of claim 15, further comprising a server adapted to communicate with the mobile device.

17. The system of claim 16, further comprising at least one network to facilitate communications at least among the hearing aid system, the mobile device, and the server.

18. The system of claim 15, wherein the hearing aid system includes a hearing aid.

19. The system of claim 15, wherein the hearing aid system is capable of audio signal processing.

20. The system of claim 15, wherein the hearing aid system includes a hearing aid and a programming module adapted to communicate with the hearing aid, and wherein the programming module is adapted to communicate with the mobile device so as to receive at least one programming instruction from the mobile device to program the hearing aid.

21. The system of claim 20, wherein the programming module includes a headset.
22. The system of claim 20, wherein the hearing aid is capable of digital audio compression and decompression, and wherein the programming module is capable of digital audio compression and decompression.
23. The system of claim 20, wherein the programming module is capable of sending a test audio signal to the hearing aid so as to test at least one aural response of a patient.
24. The system of claim 15, wherein the mobile device includes a mobile device selected from a group consisting of a digital cellular telephone, a personal digital assistant, and a personal communication and information device.
25. The system of claim 24, wherein the mobile device is adapted to synchronize data with the server.
26. The system of claim 25, wherein the mobile device is adapted to receive an upgraded audiological software from the server.
27. The system of claim 15, wherein the mobile device is adapted to use a data

service protocol selected from a group consisting of General Packet Radio Service (GPRS), High-Speed Circuit-Switched Data Service (HSCSD), Enhanced Data Rate for GSM Evolution (EDGE), Integrated Services Digital Network (ISDN), Universal Mobile Telecommunications System (UMTS), and Cellular Digital Packet Data (CDPD).

28. The system of claim 17, wherein the at least one network includes a long-range wireless network.

29. The system of claim 28, wherein the long-range wireless network includes a long-range wireless network including a protocol selected from a group consisting of Global System for Mobile Communications (GSM), Code Division Multiple Access-One (cdmaOne), Time Division Multiple Access (TDMA), PDC, JDC, Universal Mobile Telecommunications System (UMTS), Code Division Multiple Access-2000 (cdma2000), and Digital Enhanced Cordless Telephony (DECT).

30. The system of claim 17, wherein the at least one network includes a short-range network.

31. The system of claim 30, wherein the short-range network includes a short-range network selected from a group consisting of a radio communication network, an optical communication network, and a wired communication network.

32. The system of claim 31, wherein the optical communication network includes an optical communication network using Infrared Data Association (IrDA) protocol.

33. The system of claim 30, wherein the hearing aid system is adapted to communicate with the mobile device wirelessly through the short-range network.

34. The system of claim 17, further comprising an Internet coupled to the server.

35. The system of claim 34, further comprising a gateway coupled to the at least one network and the Internet.

36. The system of claim 16, further comprising at least one Java application adapted to interact with the hearing aid system, wherein the at least one Java application is adapted to be stored on the server.

37. The system of claim 36, wherein the at least one Java application includes an applet.

38. The system of claim 37, wherein the applet is adapted to move from the server to the mobile device so as to execute on the mobile device to interact with the hearing aid system.

39. The system of claim 38, wherein the applet is adapted to receive information from the server, and wherein the applet is adapted to transmit information to the server.

40. The system of claim 37, wherein the mobile device includes a browser that is adapted to receive the applet to execute on the mobile device so as to interact with the hearing aid system.

41. The system of claim 16, wherein the server includes a database that includes patient data, and audiological data associated with at least one hearing aid system.

42. The system of claim 31, wherein the radio communication network includes a network selected from a group consisting of HomeRF, DECT, PHS, WLA, and Bluetooth technology.

43. The system of claim 24, wherein the personal communication and information device includes a CompactFlash module that is adapted to communicate with the hearing aid system.

44. The system of claim 24, wherein the digital cellular phone includes a custom interface module that is adapted to communicate with the hearing aid system.

45. The system of claim 26, wherein the upgraded audiological software includes a piece of software to be executed on the mobile device.

46. The system of claim 26, wherein the hearing aid system includes a hearing aid, and wherein the upgraded audiological software includes a piece of software to be executed on the hearing aid.

47. A system comprising:
a hearing aid system; and
a terminal adapted to program the hearing aid system.

48. The system of claim 47, further comprising a server adapted to communicate with the terminal.

49. The system of claim 48, further comprising at least one network to facilitate communications at least among the hearing aid system, the terminal, and the server.

50. The system of claim 47, wherein the hearing aid system includes a hearing aid.

51. The system of claim 47, wherein the hearing aid system is capable of audio signal processing.

52. The system of claim 47, wherein the hearing aid system includes a hearing aid and a programming module adapted to communicate with the hearing aid, and wherein the programming module is adapted to communicate with the terminal so as to receive at least one programming instruction from the terminal to program the hearing aid.

53. The system of claim 52, wherein the programming module includes a headset that is capable of communicating ambient information.

54. The system of claim 52, wherein the hearing aid is capable of digital audio compression and decompression, and wherein the programming module is capable of digital audio compression and decompression.

55. The system of claim 52, wherein the programming module is capable of sending a test audio signal to the hearing aid so as to test at least one aural response of a patient.

56. The system of claim 47, wherein the terminal is a data terminal.

57. The system of claim 48, wherein the terminal is adapted to synchronize data with the server.

58. The system of claim 57, wherein the terminal is adapted to receive an upgraded audiological software from the server.

59. The system of claim 47, wherein the terminal is adapted to use a data service protocol selected from a group consisting of General Packet Radio Service (GPRS), High-Speed Circuit-Switched Data Service (HSCSD), Enhanced Data Rate for GSM Evolution (EDGE), Integrated Services Digital Network (ISDN), Universal Mobile Telecommunications System (UMTS), and Cellular Digital Packet Data (CDPD).

60. The system of claim 49, wherein the at least one network includes a long-range wireless network.

61. The system of claim 60, wherein the long-range wireless network includes a long-range wireless network including a protocol selected from a group consisting of Global System for Mobile Communications (GSM), Code Division Multiple Access-One (cdmaOne), Time Division Multiple Access (TDMA), PDC, JDC, Universal Mobile Telecommunications System (UMTS), Code Division Multiple Access-2000 (cdma2000), and Digital Enhanced Cordless Telephony (DECT).

62. The system of claim 49, wherein the at least one network includes a short-range network.

63. The system of claim 62, wherein the short-range network includes a short-range network selected from a group consisting of a radio communication network, an optical communication network, and a wired communication network.

64. The system of claim 63, wherein the optical communication network includes an optical communication network using Infrared Data Association (IrDA) protocol.

65. The system of claim 62, wherein the hearing aid system is adapted to communicate with the terminal wirelessly through the short-range network.

66. The system of claim 48, further comprising at least one distributed application adapted to interact with the hearing aid system, wherein the at least one distributed application is adapted to be stored on the server.

67. The system of claim 66, wherein the at least one distributed application includes at least one object that is capable of being distributed.

68. The system of claim 67, wherein the at least one object is adapted to move from the server to the terminal so as to execute on the terminal to interact with the hearing aid system.

69. The system of claim 68, wherein the at least one object is adapted to receive information from the server, and wherein the at least one object is adapted to transmit information to the server.

70. The system of claim 67, wherein the terminal includes a software environment that is adapted to receive the at least one object to execute on the terminal so as to interact with the hearing aid system.

71. The system of claim 48, wherein the server includes a database that includes patient data, and audiological data associated with at least one hearing aid system.

72. The system of claim 63, wherein the radio communication network includes a network implemented using Bluetooth technology.

73. A method comprising:

interacting with a client application executing on a mobile device, wherein

interacting with the client application includes entering an identification of a patient;

determining at least one programming interface to program a hearing aid

system that is at least based on a type of hearing aid system; and

programming the hearing aid system by the client application with the at

least one programming interface.

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74. The method of claim 73, wherein interacting with the client application includes interacting with the client application on the mobile device that is adapted to communicate using a wireless protocol.

75. The method of claim 73, wherein interacting with the client application includes interacting with the client application on the mobile device that is adapted to communicate using a Wireless Access Protocol.

76. The method of claim 73, further comprising communicating with a server application executing on a server coupled to an Internet through a long-range wireless network.

77. The method of claim 76, wherein communicating with the server application includes uploading the identification of the patient to the server application.

78. The method of claim 77, further comprising communicating with the client application by the server application.

79. The method of claim 78, wherein communicating with the client application includes downloading the at least one programming interface from the server application to the client application.

80. The method of claim 79, further comprising tailoring the hearing aid system to the patient by adjusting the at least one programming interface by the client application executing on the mobile device.

~~81.~~ A method comprising:
interacting with a client application executing on a terminal, wherein
interacting with the client application includes entering an identification of a patient;
determining at least one programming interface to program a hearing aid system that is at least based on a type of the hearing aid system; and
programming the hearing aid system by the client application with the at least one programming interface.

82. The method of claim 81, wherein interacting with the client application includes interacting with the client application on the terminal that is adapted to communicate using a wireless protocol.

83. The method of claim 82, wherein interacting with the client application includes interacting with the client application on the terminal that is adapted to communicate using a Wireless Access Protocol.

84. The method of claim 81, further comprising communicating with a server application executing on a server coupled to an Internet through a long-range

wireless network.

85. The method of claim 84, wherein communicating with the server application includes uploading the identification of the patient to the server application.

86. The method of claim 85, further comprising communicating with the client application by the server application.

87. The method of claim 86, wherein communicating with the client application includes downloading the at least one programming interface from the server application to the client application.

88. The method of claim 87, further comprising tailoring the hearing aid system to the patient by adjusting the at least one programming interface by the client application executing on the terminal.

89. A data structure to be uploaded to a server for tailoring an audiological therapy, the data structure comprising:

a patient identification to identify a patient; and

at least one aural response obtained by testing the patient.

90. A data structure to be downloaded from a server for tailoring an audiological

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therapy, the data structure comprising:

a distributed application to be executed on a device to interact with a hearing aid system so as to tailor an audiological therapy.

91. The data structure of claim 90, wherein the distributed application is an applet.

92. The data structure of claim 90, wherein the distributed application is at least one object adapted to be distributed.